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Abstract: The paper presents a construction of a wireless hybrid data link

operates applying two transmission channels using optical radiation (FSO – Free Space Optics) and radio one (RF - Radio Frequency). Based on some parameters (e.g. laser power, optics aperture, photodetector detectivity, signal bandwidth, beam divergence) of the link components, its data range was determined for various operating conditions (visibility and turbulence). Preliminary tests of the link prototype (TRL 6) were carried out at the Military Communication Institute, Poland. The results showed that the use of FSO/RF technology systems can provide the increase in data transmission security, link availability, and immunity to intentional interference. Considering the features of this technology, high applicable potential to military activities was observed.

Powiązane publikacje

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